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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/891,895

06/26/2001

Casimer M. DeCusatis

FIS920010139US1(14569)

2475

7590

07/27/2005

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EXAMINER

PHAN, HANH

ART UNIT

PAPER NUMBER

2638

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/891,895

Applicant(s)

DECUSATIS ET AL.

Examiner

Hanh Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2001.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 04/18/2005.

#### ***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-44 of copending Application No. 09/865,256 (DeCusatis et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-44 of copending Application No. 09/865,256 (DeCusatis et al).

Regarding claims 1-18, DeCusatis (copending Application No. 09/865,256) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device

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implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1, 18 and 28-44 of DeCusatis).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

4. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 09/964,190 (DeCusatis et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-20 of copending Application No. 09/964,190 (DeCusatis et al).

Regarding claims 1-18, DeCusatis (copending Application No. 09/964,190) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said

dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-4 of DeCusatis).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 09/975,266 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-15 of copending Application No. 09/975,266 (Jacobowitz et al).

Regarding claims 1-18, Jacobowitz (copending Application No. 09/975,266) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked

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spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

- mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of electromagnetic signal; and

- a feedback loop including

- mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

- mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

- mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

- mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-5 and 13 of Jacobowitz).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

6. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 09/963,258 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-25 of copending Application No. 09/963,258 (Jacobowitz et al).

Regarding claims 1-18, DeCusatis (copending Application No. 09/963,258) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,



mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-14 of Jacobowitz).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

7. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-32 of copending Application No. 09/944,271 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-32 of copending Application No. 09/944,271 (Jacobowitz et al).

Regarding claims 1-18, Jacobowitz (copending Application No. 09/944,271) discloses a control circuit for narrowing the pulse width of electromagnetic signals in

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communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

- mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

- a feedback loop including

- mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

- mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

- mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

- mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-5 and 11-13 of Jacobowitz).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

8. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 09/893,125 (DeCusatis et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-26 of copending Application No. 09/893,125 (DeCusatis et al).

Regarding claims 1-18, DeCusatis (copending Application No. 09/895,123) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-3 of DeCusatis).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of copending Application No. 09/976,545 (DeCusatis et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-17 of copending Application No. 09/976,545 (DeCusatis et al).

Regarding claims 1-18, DeCusatis (copending Application No. 09/976,545) discloses a control circuit for narrowing the pulse width of electromagnetic signals in

communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

- mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

- a feedback loop including

- mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

- mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

- mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

- mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-3 of DeCusatis).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

10. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-38 of U.S. Patent No. 6,738,187 (DeCusatis et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-38 of U.S. Patent No. 6,738,187 (DeCusatis et al).

Regarding claims 1-18, DeCusatis (U.S. Patent No. 6,738,187) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said

dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-8 of DeCusatis).

11. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 6,643,424 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-17 of U.S. Patent No. 6,643,424 (Jacobowitz et al).

Regarding claims 1-18, Jacobowitz (U.S. Patent No. 6,643,424) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claim 1 of Jacobowitz).

12. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,751,014 (DeCusatis et al). Although the conflicting claims are not identical, they are



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not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-21 of U.S. Patent No. 6,751,014 (DeCusatis et al).

Regarding claims 1-18, DeCusatis (U.S. Patent No. 6,751,014) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective

device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-10 of DeCusatis).

13. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,724,786 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-16 of U.S. Patent No. 6,724,786 (Jacobowitz et al).

Regarding claims 1-18, Jacobowitz (U.S. Patent No. 6,724,786) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated

electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-7 of Jacobowitz).

14. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,674,936 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-30 of U.S. Patent No. 6,674,936 (Jacobowitz et al).

Regarding claims 1-18, Jacobowitz (U.S. Patent No. 6,674,936) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function

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including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-6 of Jacobowitz).

15. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-21 of U.S. Patent No. 6,654,152 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-21 of U.S. Patent No. 6,654,152 (Jacobowitz et al).

Regarding claims 1-18, Jacobowitz (U.S. Patent No. 6,654,152) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1, 10-13, 16, 17, 19 and 20 of Jacobowitz).

16. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 6,597,840 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of the instant application are encompassed by claims 1-30 of U.S. Patent No. 6,597,840 (Jacobowitz et al).

Regarding claims 1-18, Jacobowitz (U.S. Patent No. 6,597,840) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated

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electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and

mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-7 of Jacobowitz).

17. Claims 1-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 6,816,517 (Jacobowitz et al). Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations recited in claims 1-18 of

the instant application are encompassed by claims 1-16 of U.S. Patent No. 6,816,517 (Jacobowitz et al).

Regarding claims 1-18, Jacobowitz (U.S. Patent No. 6,816,517) discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising:

mechanism for applying a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and

a feedback loop including

mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal,

mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency,

mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective



device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and  
mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see claims 1-4 of Jacobowitz).

### ***Response to Arguments***

18. Applicant's arguments filed 04/18/2005 have been fully considered but they are not persuasive.

The applicant's arguments to claims 1-18 are not persuasive. The independent claims 1 and 6 are now amended to include the limitation of " the wavelength selective device to narrow the pulse width of the electromagnetic signal" and applicant argues that US Patent Applications Nos. 09/865,256, 09/964,190, 09/975,266, 09/963,258, 09/944,271, 09/893,125, 09/976,542 and US Patents Nos. 6,738,187, 6,643,424, 6,751,014, 6,724,786, 6,674,936, 6,654,152, 6,597,840, 6,816,517 fail to teach such limitation. The examiner respectfully disagrees. US Patent Applications Nos. 09/865,256, 09/964,190, 09/975,266, 09/963,258, 09/944,271, 09/893,125, 09/976,542 and US Patents Nos. 6,738,187, 6,643,424, 6,751,014, 6,724,786, 6,674,936, 6,654,152, 6,597,840, and 6,816,517 discloses a control circuit for narrowing the pulse width of electromagnetic signals in communication networks by aligning an electromagnetic signal having a peaked spectrum function including a center wavelength and a wavelength selective device implementing a peaked passband function including a center wavelength, said circuit comprising: mechanism for applying

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a dither modulation signal at a dither modulation frequency to said electromagnetic signal, and inputting said dither modulated electromagnetic signal to said wavelength selective device to narrow the pulse width of the electromagnetic signal; and a feedback loop including mechanism for converting a portion of said dither modulated electromagnetic signal to an electric feedback signal, mechanism for continuously comparing said feedback signal with said dither modulation signal and generating an error signal representing a difference between a frequency characteristic of said feedback signal and a dither modulation frequency, mechanism for applying said error signal to better align the center wavelengths of the electromagnetic signal and the wavelength selective device, wherein said center wavelength of said electromagnetic signal and said wavelength selective device center wavelength become aligned when said frequency characteristic of said feedback signal is two times said dither modulation frequency, and mechanism to selectively prevent said error signal from being applied to better align said center wavelengths (see double patenting rejection section above).

Therefore, it is believed that the limitations of claims 1-18 are still met by US Patent Applications Nos. 09/865,256, 09/964,190, 09/975,266, 09/963,258, 09/944,271, 09/893,125, 09/976,542 and US Patents Nos. 6,738,187, 6,643,424, 6,751,014, 6,724,786, 6,674,936, 6,654,152, 6,597,840, and 6,816,517 and the double patenting rejection is still maintained.

**Conclusion**

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571)272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
**HANH PHAN**  
**PRIMARY EXAMINER**